

determining a desired reverse channel signal quality metric;

determining a reverse channel signal quality metric for each of the plurality of mobile radios, thus creating a plurality of reverse channel signal quality metrics;

determining a minimum reverse channel signal quality metric of the plurality of mobile radios;

summing the plurality of reverse channel signal quality metrics; and

the base station instructing the first mobile radio to monitor transmission of power control information in said first slot, said power control information instructing the remote transmitter to decrease the power output if the sum of the reverse channel signal quality metrics is greater than or equal to the maximum reverse channel signal quality metric or the minimum reverse channel signal quality metric is greater than the desired reverse channel signal quality metric.

7. The method of claim 6 and further including the step of the base station adjusting a minimum reverse channel energy per bit to total interference spectral density ratio depending on reverse channel conditions.

8. The method of claim 6 and further including the step of adjusting a maximum reverse channel energy per bit to total interference spectral density ratio in response to an increase or decrease in the quantity of said plurality of mobile radios.

9. The method of claim 6 wherein the mobile radio is a code division multiple access radiotelephone and the base station is a code division multiple access base station.

10. The method of claim 6 wherein the signal quality metric is an energy per bit to total interference spectral density ratio.

11. The method of claim 10 wherein the energy per bit to total interference spectral density ratio is E_b/I_o .

12. A method for controlling a power output of a remote transmitter in a first mobile radio of a plurality of mobile radios, the first mobile radio receiving signals from a base station over a forward channel, the base station receiving signals from the first mobile radio over a reverse channel, the method comprising the steps of:

determining a maximum reverse channel signal quality metric;

determining a desired reverse channel signal quality metric;

determining a reverse channel signal quality metric for each of the plurality of mobile radios, thus creating a plurality of reverse channel signal quality metrics;

determining a minimum reverse channel signal quality metric of the plurality of mobile radios;

summing the plurality of reverse channel signal quality metrics; and

the base station instructing the remote transmitter to monitor power control information associated with a predefined slot of said forward channel, said power control information instructing the remote transmitter to increase the power output if the sum of the reverse signal quality metrics is less than the maximum reverse channel signal quality metric.

13. The method of claim 12 and further including the step of the base station adjusting a minimum reverse channel energy per bit to total interference spectral density ratio depending on reverse channel conditions.

14. The method of claim 12 and further including the step of adjusting a maximum reverse channel energy per bit to total interference spectral density ratio in response to an

increase or decrease in the quantity of the plurality of radiotelephones.

15. A method for controlling a power output of a remote transmitter in a first mobile radio of a plurality of mobile radios, the first mobile radio receiving signals from a base station over a forward channel, the base station receiving signals from the first mobile radio over a reverse channel, the method comprising the steps of:

determining a maximum reverse channel energy per bit to total interference spectral density ratio;

determining a desired reverse channel energy per bit to total interference spectral density ratio;

determining a reverse channel energy per bit to total interference spectral density ratio for each of the plurality of mobile radios, thus creating a plurality of reverse channel energy per bit to total interference spectral density ratios;

determining a minimum reverse channel energy per bit to total interference spectral density ratio of the plurality of mobile radios;

summing the plurality of reverse channel energy per bit to total interference spectral density ratios; and

the base station instructing the remote transmitter to monitor power control information associated with a predefined slot of said forward channel, said power control information instructing the remote transmitter to increase the power output if the minimum reverse energy per bit to total interference spectral density ratio is less than or equal to the desired reverse channel energy per bit to total interference spectral density ratio.

16. A method for controlling power output of a first remote transmitter of a plurality of remote transmitters, each remote transmitter being part of a mobile radiotelephone, the plurality of mobile radiotelephones receiving data packets from a cellular base station over a forward channel, the cellular base station receiving data packets from the plurality of mobile radiotelephones over a reverse channel, the reverse channel having a maximum energy per bit to total interference spectral density ratio, the data packets being comprised of frames, the method comprising the steps of:

determining a desired reverse channel energy per bit to total interference spectral density ratio;

determining a energy per bit to total interference spectral density ratio on the reverse channel for each of the remote transmitters, thereby creating a plurality of energy per bit to total interference spectral density ratios;

summing the plurality of energy per bit to total interference spectral density ratios to produce a summation value;

determining a minimum reverse channel energy per bit to total interference spectral density ratio for the plurality of mobile radiotelephones;

comparing the maximum reverse channel energy per bit to total interference spectral density ratio to the summation value;

comparing the minimum reverse channel energy per bit to total interference spectral density ratio to the desired energy per bit to total interference spectral density ratio; and

the base station instructing the first remote transmitter to decrease power if the summation value is greater than or equal to the maximum reverse channel energy per bit to total interference spectral density ratio or the mini-